Family PACT

Planning • Access • Care • Treatment

OFFICE OF FAMILY PLANNING
CALIFORNIA DEPARTMENT OF HEALTH SERVICES

PARTICIPANT PACKET

Beyond Pills and Condoms:
Contraceptive Management throughout the Lifespan

☎ Statewide Audio Teleconference ☎
Date: May 19, 2003
Time: 12:30pm – 2:30pm

Sponsored by
California Department of Health Services,
Office of Family Planning

Statewide Audio Teleconference

Beyond Pills & Condoms:
Contraceptive Management throughout the Lifespan

Date: May 19, 2003
Time: 12:30 pm to 2:30pm

AGENDA

- Welcome: *Andria Hancock-Crear*, M.P.H., Family PACT Project Manager
  California Family Health Council, Inc.

- *Jan Treat*, P.H.N., M.N., Chief
  Department of Health Services, Office of Family Planning

- Contraceptive Management throughout the Lifespan: *Anita Nelson*, MD
  Professor of Obstetrics and Gynecology at the UCLA School of Medicine,
  Medical Director of the Women's Health Care Clinic and the Women's Health Care Nurse Practitioner Program at the Research and Education Institute at Harbor-UCLA Medical Center.

- Questions and Answers

- Review of Resources and Wrap-up

COURSE OBJECTIVES: At the conclusion, Family PACT providers will be able to:

- Select medically appropriate contraception that best matches a woman's reproductive stage, health needs, and personal choice
- Utilize data, information, and resources to improve medical management of a woman's family planning services
- Utilize Family PACT information and materials to improve the quality of Family PACT services.
- Identify and follow Family PACT standards that are related to providing comprehensive reproductive health services

Anita L. Nelson, M.D.

Dr. Nelson is a Professor in the Department of Obstetrics and Gynecology at the David Geffen School of Medicine at the University of California in Los Angeles (UCLA). She is Medical Director of the Women's Health Care Clinic and the Women's Health Care Nurse Practitioner Program at the Research and Education Institute at Harbor-UCLA Medical Center in Torrance, California. She is a member of the Gynecology Division at Harbor-UCLA and is the Program Director of Women's Health Care Teams for the Coastal County Health Centers in the County of Los Angeles. She is also the Medical Director for the Research Division of the California Family Health Council.

Most of Dr. Nelson's research efforts have been in the areas of contraception, menopause and gynecologic infection. She is principal investigator or investigator on several National Institutes of Health/National Institute of Child Health and Human Development (NIH/NICHHD) research grants as well as commercially funded studies. She is a co-investigator on the Women's Health Initiative. She has written more than forty articles for professional journals. She is an author of *Managing Contraception* and *Contraceptive Technology* and an editor for *The Female Patient, The Contraceptive Report,* and *Contraceptive Technology Update.* She is frequently interviewed by the media. She lectures extensively on a variety of women's health care issues.

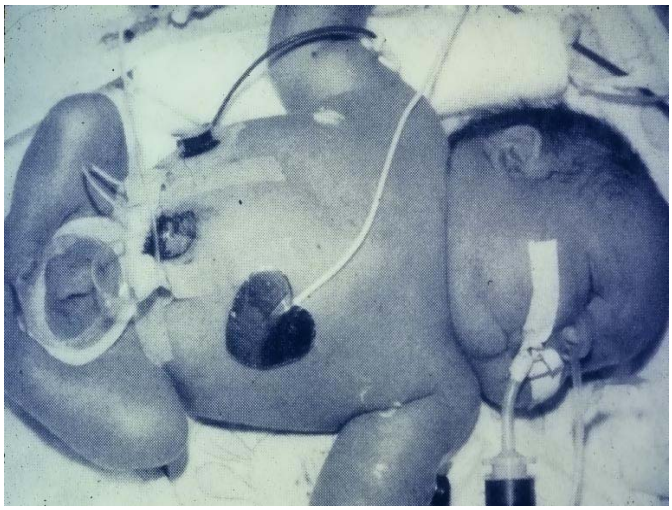
Dr. Nelson received her medical degree from the UCLA School of Medicine. She completed her internship and residency training at Harbor-UCLA Medical Center.

Beyond Pills and Condoms: Contraceptive Management Throughout the Lifespan

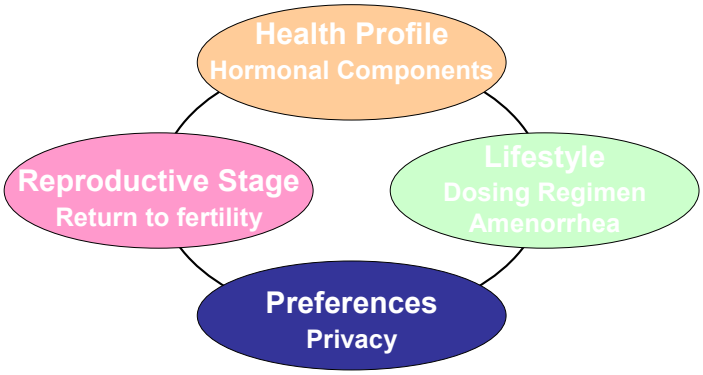
Anita L. Nelson, MD
Harbor-UCLA Medical Center

New Paradigms in Contraception

- Goal: planned and prepared for pregnancy
  - "Intended pregnancy" not enough
- Target population for Family PACT services = All fertile women
- Efficacy: "tiers of protection"
- "Contraceptive fit": considers all dimensions of contraception

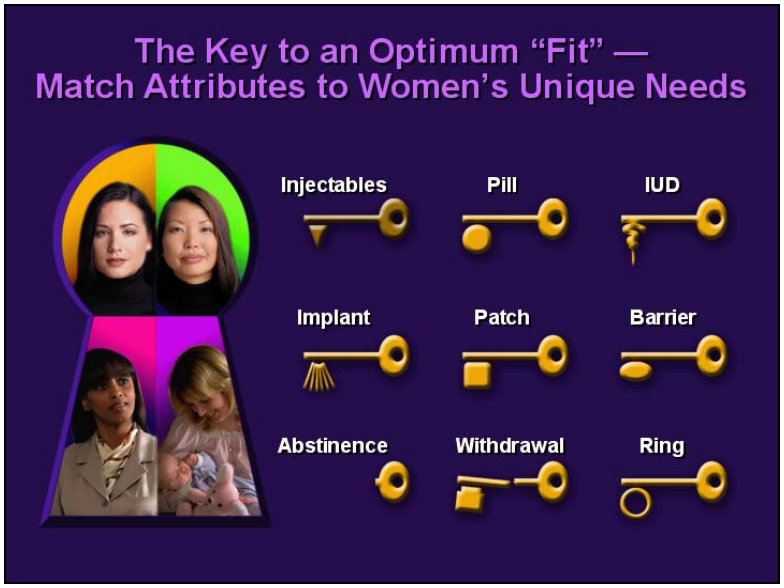


Matching Patients' Needs to a Balanced Approach



Optimum "Contraceptive Fit"

- The safest, most effective birth control method that will work well for the user
- Takes into account a woman's (and couple's) individual needs



"Contraceptive Fit" Dimensions

- Health profiles
  - Medical contraindications
  - Non-contraceptive benefits
- Lifestyle
  - Side effects
  - Dosing regimens
  - Impacts on menses
  - Access
  - Usability
  - Cost
  - Partner involvement

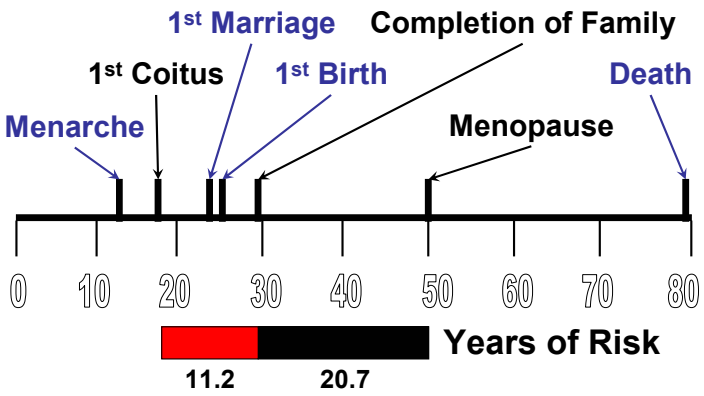
"Contraceptive Fit" Dimensions

- Preferences
  - Privacy
  - Phobias: needle, vagina, foreign body
  - Convenience
  - "Natural" methods preferred
  - Religious proscriptions
- Reproductive stage
  - Efficacy
  - Reversibility
  - Rapid versus slow return to fertility

Tiers of Contraceptive Efficacy

Longer Term	**Implants, IUDs, Monthly Injections DMPA Injections**
Combined Hormonal	**Vaginal Rings, Transdermal Patches Oral Contraceptive Pills**
Barriers and Behaviors	**Male Condoms Diaphragms, Withdrawal, FAM, NFP Caps, Female Condoms, Shield Spermicides**

A Reproductive Timeline for Women



Forrest, JD, *Contemp Ob/Gyn*, 1988

Adolescence as a Time of Transition

- Physiologically, dramatic changes occur in teens
- Cognitive development does not parallel physiologic change
- Socially, there is a transition between strong parental role models and independence
  - Peer role models often replace adult models
  - Peer pressure overwhelming
- Risk taking behavior evident
- Changes occur at earlier ages

Age-Specific Problems

- 11-14 year olds may have trouble associating present actions with future consequences
- 14-17 year olds preoccupied with asserting independence may rebel against health care profession

Adolescents' Discussion of Health Risks With Their Providers

- Adolescents thought their health care providers should discuss an average of 6.7 topics with them
  - One-third had not discussed any of the desired topics
  - Only 12% had discussed all of the desired topics
- Overall, 71% reported at least one of eight health risks
  - 63% of these teens had not spoken to their health care provider about any of the risks
  - Only 14% had discussed all their risks with their provider

Klein JD, Wilson KM. *J Adolesc Health*. 2001;30:190

Emergency Contraception (EC) Survey of Adolescent Health Experts

- 80% give emergency contraception, but rarely
- 12% believed it would encourage contraceptive risk taking
- 25% said it would discourage current use of other methods
- 41% give EC as part of contraception visit
- 28% give EC as part of routine health care

Gold 1997

California Teen Pregnancy Rates

- In 1999: 50.2/1,000
- In 2000: 48.1/1,000
- Since 1990, 31.3% reduction in teen births
- In 2000: 56,268 live births – 1 every 9 minutes
- Challenge: between 1995-2005, the number of female adolescents is expected to increase 34%
- Between 1992-2001, chlamydia rate increased 28% among teens aged 15-19

California Department of Health Services Letter. April 18, 2002

Sexual Activity of High School Students - 1997

	Ever sex	≥ 4 lifetime partners	Currently active
Grade 9	38%	12%	24%
Grade 10	43%	14%	29%
Grade 11	50%	17%	38%
Grade 12	61%	21%	46%

MMWR. 1998:47

What Are They Doing?

- Survey of 1300 Ohio 7th-11th graders
  - 55% had engaged in intercourse
    - 1/3 reported casual sex
- CDC reports vaginal intercourse rates declined in teens from 51% in 1991 to 43% in 2001
  - But … oral sex rates increased in teens
    - 1/3 of 15-17 year olds
    - 2/3 of 18-24 year olds

Adolescent Utilization of Contraception in the U.S.

- 2/3 of adolescents use some method of birth control at first coitus, usually male condoms.
- Contraceptive use drops over time.
- Only 40% of teens seek medical contraception within the first year of becoming sexually active.
  - Younger teens take longer to seek contraception.
- U.S. teens sexually active for 6-12 months prior to coming for family planning services.
  - 1/2 of teens seek pregnancy testing on initial visit.

Reproductive Health Care of Adolescents

- Pregnancy prevention (maybe)
- STD prevention
- Preservation of future fertility

Adolescent Women May Be Conflicted About Pregnancy Prevention

- If no grand future, little to lose from pregnancy
- Pregnancy demonstrates her an adult status
- Pregnancy gains her attention – good or bad
- Pregnancy gives her someone who loves her
- Early pregnancy more likely to have family members able to help her care for child

Barriers to Successful Contraceptive Use by Teens

- Ignorance: anatomy, reproductive system, personal fertility (vulnerable)
  - Misinformation provided by peers
- Sense of invulnerability
- Other risk taking behaviors: alcohol and other drugs, violence, etc.
  - Overwhelming risks associated with pregnancy
  - May increase risk of pregnancy

General Risk-Taking Behaviors of Youth, 1995

- 21% rarely or never used safety belt
- 39% rode with drinking driver in last 30 days
- 52% drank alcohol in last 30 days
- 25% used marijuana in last 3 days
- 9% attempted suicide in last 12 months

MMWR. 1996

Other Risk-Taking Behaviors of Youth, 1995

- 39% in physical fight in last 12 months
- 4.2% treated for fight injuries in last 12 months
- 20% carried a weapon in last 30 days
- 4.5% missed school for fear of safety in last 30 days

MMWR. 1996

Barriers to Successful Contraceptive Use by Teens

- Lack of ability to negotiate with partner
  - Wants to please, to be loved
- Need for privacy
- Access to medical care impeded
  - No insurance
  - Fear of parental knowledge
  - Approbation of private provider
  - Fear of pelvic exam

Approaches to Reduce Barriers to Contraceptive Access

- Disconnect pelvic exam (and Pap smear) from access to contraception
  - No need for pelvic exam to get any hormonal method
  - Only methods that require Pap smear:
    - IUD, diaphragm, cervical cap, Lea's shield
    - ± Female condom

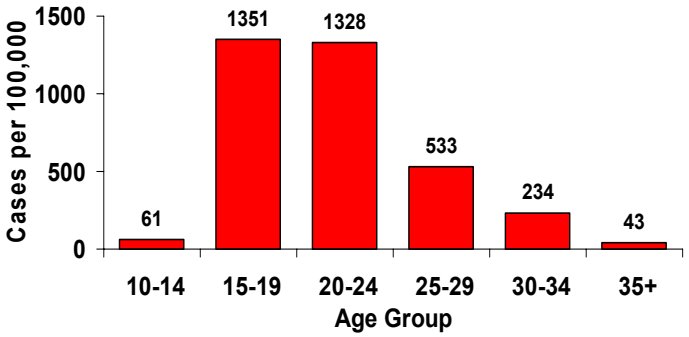
Approaches to Reduce Barriers to Contraceptive Access

- Teen friendly services
  - Immediate booking
  - Immediate answers to call-in questions
  - Preserve confidentiality or refer to site that can

Adolescent Contraception Increasing Compliance

- Recognize that compliance among more adult women is fairly discouraging too
- Counseling is vital:
  - Ask open-ended questions to get patient to verbalize her concerns
  - Provide correct information non-judgmentally and non-condescendingly
  - Select method to maximize method efficacy and minimize side effects which might irritate her

Chlamydia Incidence Rates by Age Los Angeles County, 1997



Department of Health Services, Public Health Letter, April 1999

Estimates of Highest and Lowest Age-Specific Failure Rates

Method	Age	Lowest	Highest
OCs	15-19	8.0	18.1
	15-44	3.8	8.7
Condoms	15-19	11.4	19.3
	15-44	9.8	16.5
Implants	15-44	0.05	0.5
Injectables	15-44	0.3	0.4

Contraceptive Kit for Adolescents

- Condoms (for STD protection)
- Emergency contraception (readily available)

plus

- The most effective contraceptive method (usually hormonal) that she will use
  - OCs
  - Transdermal patch
  - DMPA
  - Vaginal ring

Barrier Methods

- Male latex condoms are effective in preventing the sexual transmission of HIV infection and can reduce the risk for other STDs (i.e. gonorrhea, chlamydia and trichomonas)
- They are likely to be more effective in preventing infection transmitted by fluids from mucosal surfaces … than protecting those transmitted by skin-to-skin contact (HSV, HPV, syphilis and chancroid)

CDC 2002

Barrier Methods

- Vaginal spermicides are not effective in preventing cervical gonorrhea, chlamydia or HIV infection
- Condoms lubricated with spermicide are no more effective than other lubricated condoms in protecting against transmission of HIV and other STDs

CDC 2002

WHO EC Study: Single Dose vs 2 Doses Used Within 120 Hours

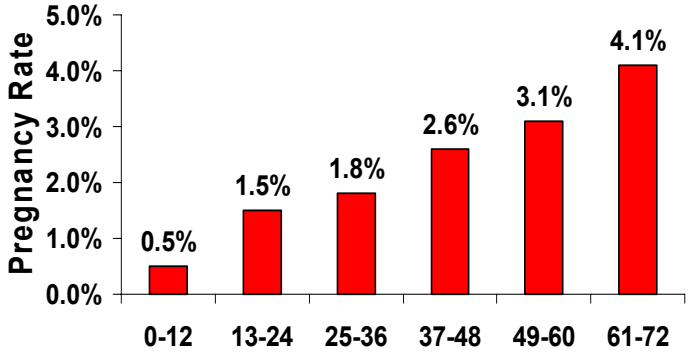
	Pregnancy Rates	# Pregnancies
Single dose LNG (1.5 mg)	1.5%	20/1356
2 doses LNG (0.75 mg x 2)	1.8%	24/1356
Mifepristone (10 mg)	1.5%	21/1359

No differences seen in nausea, vomiting, headache, or change in onset of next menses.

von Hertzen H, et al. ***Lancet*. 2002**;360:1803-10

How Long After the Morning After?

WHO Pooled Data (Yuzpe and LNg), 1998



Piaggio, von Hertzen, Grimes and Van Look. **1999**

Oral Contraceptives for Teens

- Important noncontraceptive benefits
  - Decreased dysmenorrhea
  - Acne treatment
  - Decreased blood loss

but…

- Failure rates higher
- Interruption in use high
- Privacy issues

Oral Contraceptives: Quick Start

- With conventional start of OCs, up to 25% of women do not start their pills due to:
  - Pregnancy
  - Change in method
  - Confusion about pill instructions
  - Fear of possible side effects

Westhoff CW, et al. Fertil Steril. 2003;79:322-9

Oral Contraceptives: Quick Start

- Patient takes the first pill in clinic
- Patient uses back-up method for 7 days
- Advantages:
  - Easy to implement
  - Simplifies health education
  - Increases initiation
- Question: impact on breakthrough bleeding

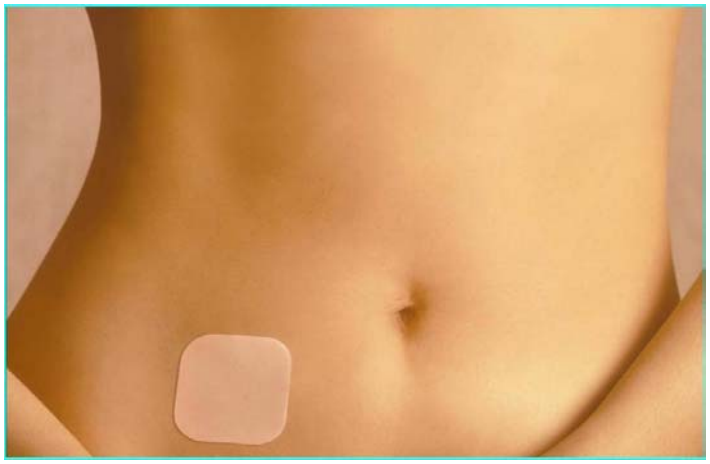
Westhoff CW, et al. Fertil Steril. 2003;79:322-9

Quick Start Versus First Day Start

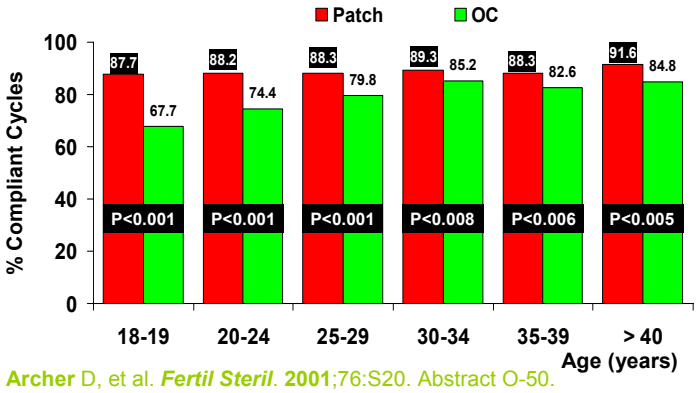
	Quick (n=63)	First Day (n=41)
Mean days bleeding and spotting[1]	18.9	19.4
Mean # bleeding/spotting episodes[1]	3.7	3.8
Mean length of bleeding/spotting free[1]	17.4	17.2
Number of pills missed in 90 days[1]	1.7	1.8
Percent satisfied[1]	93.6	95.1
3 month compliance in teens (n=77,116)[2]	72%	56%

1. Westhoff CW, et al. Fertil Steril. 2003;79:322-9
2. Lara-Torre E, Schroeder B. Contraception. 2002;66:81-85

Application of Contraceptive Patch on Abdomen



Contraceptive Patch: Compliance by Age Group



Archer D, et al. ***Fertil Steril*. 2001**;76:S20. Abstract O-50.

Contraceptive Patch: Distribution of Pregnancies by Baseline Body Weight Deciles

(n=3319 subjects)

Zieman M, et al. ***Fertil Steril*. 2001**;76:S19. Abstract O-48.

Body Weight Decile	Weight Range (kg)	Total Pregnancies
1	<52	1
2	52 - <55	2
3	55 - <58	0
4	58 - <60	0
5	60 - <63	2
6	63 - <66	0
7	66 - <69	1
8	69 - <74	0
9	74 - <80	2
10	≥80	7
	80 - 85	1
	85 - 90	1
	≥90	5

Contraceptive Patch Comparative Data: Most Common Adverse Events

	Overall Incidence (%)	
	ORTHO EVRA®	Triphasil®
Breast symptoms	19	6
Headache	22	22
Application site reaction	20	---
Nausea	20	18
Abdominal pain	8	8
Dysmenorrhea	13	10

Audet, et al. *JAMA*. 2001;285:2347-54

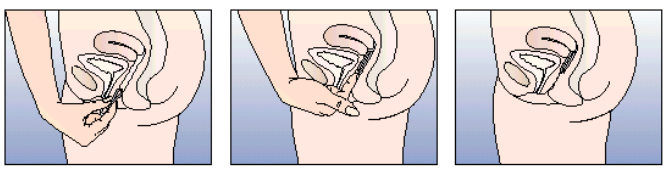
Contraceptive Vaginal Ring

- Very low dose
  - 120 μg/day etonogestrel
  - 15 μg/day ethinyl estradiol
- Flexible
- Transparent
- Outer diameter: 54 mm
- Thickness: 4 mm
- One ring per cycle: 3 weeks ring-in
  1 week ring-free

Contraceptive Vaginal Ring: Advantages

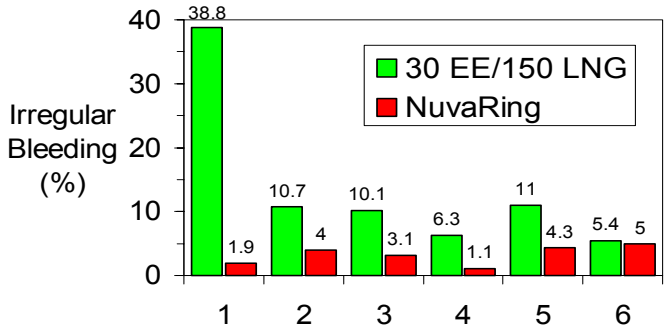
- A monthly method
- Easily inserted by the woman
- Discreet
- Lowest EE dose (15 μg/day)
- Constant serum concentrations
- Avoids GI interference with absorption
- Avoids hepatic first-pass metabolism

Contraceptive Vaginal Ring: Placement



No incorrect way to insert contraceptive vaginal ring

Contraceptive Vaginal Ring versus 30 μg OC: Cycle Control

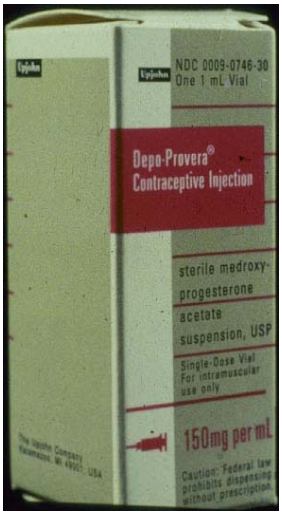


Metabolic studies

DMPA

Medroxyprogesterone Acetate Suspension

Depo-Provera®
Contraceptive Injection



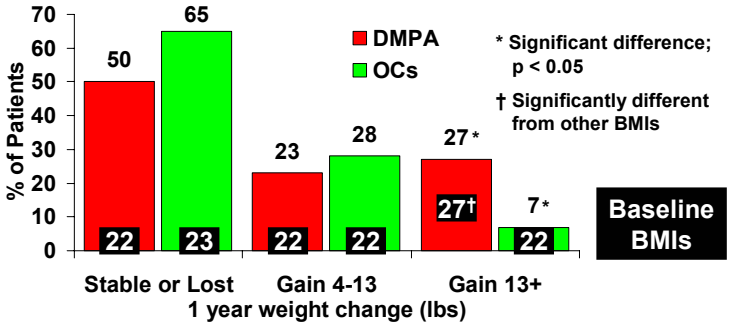
DMPA Issues

- Side effects:
  - Menstrual irregularities tend toward amenorrhea with time
  - Slow return to fertility (10 months average delay to conception)
- Concerns:
  - Weight gain (1-3 kg with long-term use)
  - Low estrogen levels (bone density effects)
  - Removes incentive for condom use

DMPA and Weight Change: Recent Observational Studies

Study	N	Wt Change
Mainwaring, *Contraception*, 1995	22	None
Moore, *Contraception*, 1995	50	None
Taneepanichskul, *Contraception*, 1999	100	None
Danli, *Contraception*, 2000	1994	None
Pelkman, *Am J Clin Nutr*, 2001	20	None
Polaneczky, *Fam Plan Perspect*, 1996	125	+3.3 ± 8.6 lbs
Risser, *J Adolesc Health*, 1999	130	+3.0 ± 4.5 lbs
Epsey, *Contraception*, 2000	306	+6.0 lbs
Templeman, *J Pediatr Adolesc Gynecol*, 2000	133	+9.8 ±10.5 lbs

High Baseline BMI May Predispose To Weight Gain On DMPA



BMI = body mass index; BMI≥25 = overweight; OCs = oral contraceptives; DMPA = depot medroxyprogesterone acetate

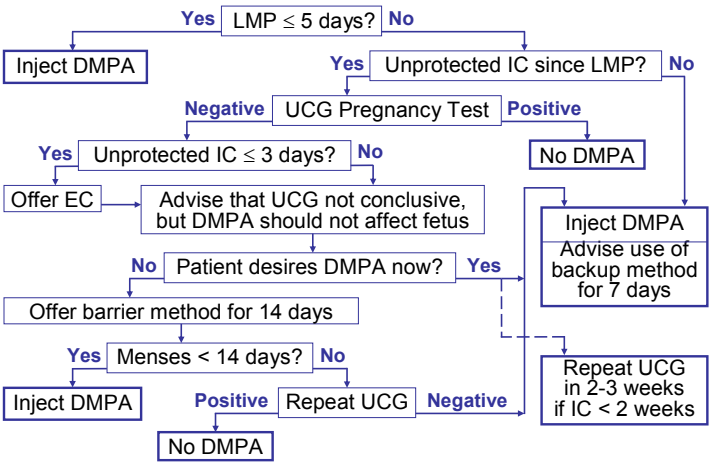
Risser WL et al. *J Adolesc Health*. 1999;24:433-6

DMPA: BMD and Adolescents

- Adolescence is a time of BMD increase
- Achieving peak bone mass is dependent on adequate calcium intake, physical activity, and hormonal status
- Short-term studies of DMPA use in adolescents shows initial lowering of BMD
- Data on long-term impact needed: prospective, ongoing 7-year study
- Encourage calcium supplementation in all adolescents, including those who use DMPA

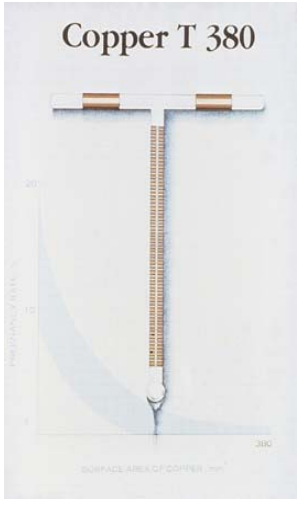
Recker RR, et al. *JAMA*. 1992;268:2403-8
Weaver CM, et al. *J Clin Endocrinol Metab*. 1999;84:1839-43
Cromer BA, et al. *J Pediatr*. 1996;129:671-6

DMPA Administration Flow Sheet



Reproductive Health Goals for Women in Their 20s and 30s

- Preserve fertility
- Space children
- Prevent pregnancy
- STD protection
- Reduction of reproductive cancers



ParaGard® T 380A Copper IUD

	Net cumulative rates (%) by year					
	1	**2**	**3**	**4**	**7**	**10**
Pregnancy	0.7	0.8	1.1	1.3	1.7	2.1
Expulsion	5.5	7.5	8.5	9.2		
Medical	16.1	26.8	32.4	36.3		
Continuation	73.0	50.2	40.3	31.8	99.9	99.9

Trussell, 1993

IUD Issues: Infection

- PID and IUD use: confined to early weeks
- Farley's reports from multinational studies:
  - 9/1000 cases of PID
  - Infection confined to first 20 days
- Finnish study of 975 women in 1996:
  - No cases of PID
- U.S. studies:
  - "PID" rate 1/1000

Recent IUD Findings

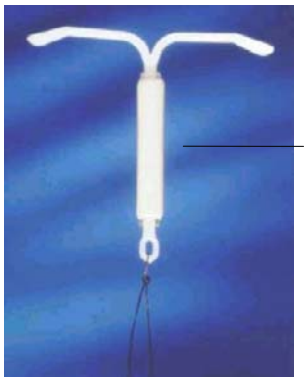
- ParaGard® is effective for 12 years (off label)
- No increased risk of infertility in nulliparous IUD users [1]
  - Chlamydia antibodies only predictor of infertility
- No increased risk of infection with IUD in HIV-infected women [2]
- IUD insertion immediately following first trimester abortion safe [3]

1. **Hubacher** D, et al. ***N Engl J Med***. **2001**;345:561-7.
2. **Morrison** CS, et al. ***BJOG***. **2001**;108:784-90.
3. **Grimes** D, et al. ***Cochrane Database Syst Rev***. **2000**;CD001777.

Candidates for IUD Use

- Characteristics shared by both devices
  - Parous
  - Stable, mutually monogamous relationship
  - No history of PID
  - Uterus 6-9 cm
- Characteristics different between devices
  - LNG IUS not for women with history or risk factors for ectopic pregnancy
  - LNG IUS may be used for women with copper allergies, Wilson's disease or heavy menses

Levonorgestrel Intrauterine System (LNG IUS)



LNG IUS Typical Use Failure Rates (Pearl Index)

- First year 0.14%
- 5-year cumulative 0.71%
- Meta-analysis of comparative clinical trials showed no differences in efficacy compared to copper IUDs with ≥ 250 mm^2 copper

Anderson, et al. ***Contraception***. **1994**;49:56
Luukkainen, et al. ***Contraception***. **1987**;36:169
French RS, et al. ***Br J Obstet Gynecol***. **2000**;107:1218-25

LNG IUS: Menstrual Cycle Changes

- Months 1-4: increased days of spotting and bleeding (mean 1st month 16-17 days of spotting)
- After 6 months: average 1 day bleeding per month with some residual, unpredictable spotting
- By 12 months: mean bleeding days = 0; 80% had 1-3 days of spotting; 90% reduction in blood loss in women with menorrhagia; ↑ HbG 0.4
- Amenorrhea: 20% by 12 months; 30% by 24 months; 60% by 12 years

Women Well-Suited to DMPA Use

- DMPA is a mainstream contraceptive choice for many women:
  - Women who seek or would benefit from high efficacy, convenience and immediate effectiveness
  - Women who are postpartum or breastfeeding
  - Women in whom amenorrhea is desired for medical reasons, including menorrhagia/dysmenorrhea and PMS
  - Women in whom estrogen is contraindicated

Kaunitz AM. *Int J Fertil.*1998;43:73-83

Other Women For Whom DMPA Is Appropriate

- Women with certain medical conditions:
  - Seizure disorders
  - Sickle-cell anemia
  - Mental retardation
  - Lipid disorders (including hypertriglyceridemia)
  - Complicated migraine headaches or migraines worsened with OC use

Recent Studies Evaluating Depressive Symptoms and DMPA Use

Study	N	Design	Outcome
Westhoff 1996	4528	Medline rev. (20 year)	No data to support a causal relationship
Westhoff 9998	495	Prospective (1 year use)	Slight improvement in depressive symptom (DS) scores
Civic 2000	457	Population based (3 years)	Slight worsening of DS scores, but higher baseline depression in DMPA users
Gupta 2001	53	Prospective (1 year use)	Significant improvement in DS scores in DMPA users

Westhoff C. *J Reprod Med.* **1996**;41(suppl):401-6
Westhoff C et al. *Contraception.* **1998**;57:237-40
Civic D et al. C*ontraception.* **2000**;61:385-90
Gupta N et al. *J Pediatr Adolesc Gynecol.* **2001**;14:71-6

Oral Contraceptive Pills

- Safe and well-tested -- the gold standard:
  - 43 years of clinical experience in US
  - Best studied medication in history
- Failure rate with consistent and correct use < 1%
- Typical first year failure rate is 8%
- Rapidly reversible:
  - Only 2 week average delay in fertility
- Extensive non-contraceptive benefits

"Birth control pills are not dangerous, but there are dangerous women out there. Find them and keep them away from the pill, and the pill will do its work well."

Paul Brenner, M.D.
Professor, OB-GYN
USC

OC Failure by OC Estrogen Dose with Body Weight > 70.5 kg

Dose EE	Pregnancy RR	95% CI
≥ 50 µg	1.2	0.4 – 3.5
< 50 µg	2.6	1.2 – 5.9
< 35 µg	4.5	1.4 – 14.4

Holt VL, et al. *Obstet Gynecol* 2002; 99:820-7.

Non-Contraceptive Health Benefits of Oral Contraceptives

Proven Reduction in Risk:

- Ovarian Cancer
- Endometrial Cancer
- Pelvic Inflammatory Disease
- Ectopic Pregnancy
- Benign Breast Disease
- Menorrhagia
- Dysmenorrhea
- Iron Deficiency Anemia
- Low Bone Density

Possible Reduction in Risk:

- Cardiovascular Disease
- Uterine Fibroids
- Endometriosis
- Rheumatoid Arthritis

Adapted from: Ory HW. *Fam Plann Perspect.* 1982;14:182

Incidence of Events Commonly Attributable to OC Use

Data displayed as: N (%)	Triphasic Norgestimate/EE (N=228)	Placebo (N=234)	p-value
Headache	42 (18.4)	48 (20.5)	0.639
Nausea	29 (12.7)	21 (9.0)	0.231
Dysmenorrhea	23 (10.1)	21 (9.0)	0.752
Breast pain	21 (9.2)	11 (4.7)	0.067
Abdominal pain	13 (5.7)	9 (3.9)	0.270
Back pain	13 (5.7)	8 (3.4)	0.597
Vomiting	8 (3.5)	6 (2.6)	0.597
Breast enlargement	6 (2.6)	3 (1.3)	0.333
Emotional lability	6 (2.6)	1 (0.4)	0.065
Weight gain	5 (2.2)	5 (2.1)	1.000

Redmond et al. *Contraception.* 1999;60:81-5

Oral Contraceptives and the Risk of Breast Cancer for Women of Age 35-64

- Population based, case control study
- 4,575 women with breast cancer
- 4,685 control women
- Current users: RR = 1.0 (0.8-1.3)
- Former users: RR = 0.9 (0.8-1.0)
- No consistent increases with increasing estrogen dose or duration of use
- No association with family history of breast cancer or young initiation

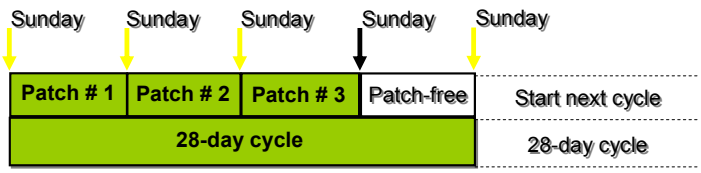
Marchbanks PA, et al. N Engl J Med. 2002;346:2025-32.

Extended OC Applications: Control of Menstrual Cycle Timing For Convenience

- Honeymoons
- Business meetings
- Travel
- Sporting events
- Military campaigns
- Examinations
- Life

Contraceptive Patch Administration

- Simple administration schedule
  - Apply weekly for 3 weeks
  - Apply same day-of-the-week
  - 1 week patch-free



Contraceptive Patch: Mean Proportion of Participants' Cycles with Perfect Compliance

	N	% of Cycles	Total Cycles
Patch	811	88.2 *	5141
Tri LNG	605	77.7	4134

* P<.001

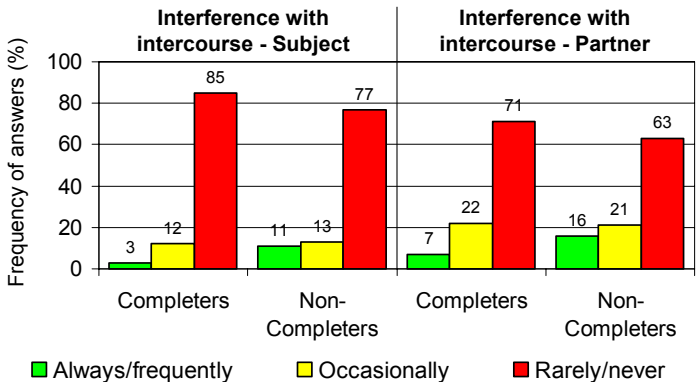
Audet, et al. **JAMA**. **2001**;285:2347-54

Contraceptive Vaginal Ring: Advantages

- A monthly method
- Easily inserted by the woman
- Discreet
- Lowest EE dose (15 µg/day)
- Constant serum concentrations
- Avoids GI interference with absorption
- Avoids hepatic first-pass metabolism

Contraceptive Vaginal Ring: Acceptability

(ITT group, Last assessment)



Contraceptive Vaginal Ring: Pharmacokinetics and Drug Interactions

- No daily fluctuations in serum hormone concentrations
- **EE** exposure is half that with a 30 µg OC
- **Etonogestrel** exposure is comparable with a 30 EE/150 DSG OC
- Tampon or anti-mycotic co-administration has not been shown to impair hormone release and/or absorption

Condom

- Typical first year failure rate: 10-12%; range 2-20%
- Advantages:
  - Male participation
  - Inexpensive
  - Readily available
  - ◆ Protects well against STDs
  - ◆ Cervical dysplasia reduced
- Special applications:
  - Premature ejaculation
  - Antisperm antibody
  - Female allergy to sperm

Avanti Polyurethane Condom

	Avanti	**Latex**
Breakage & slippage, 1997	8.5%	1.6%
Breakage & slippage, 1990	10.5%	1.7%
Breakage	66/1804	7/1882
Slippage	6/1804	1/1882
Uncorrected pregnancy rate	4.6 (2.6)	6.1 (1.0)
Corrected pregnancy rate	5.3 (3.1)	6.5 (1.2)

Female Barrier Methods Failure Rates

Users	Perfect Use			Typical Use
	Nulliparous	Parous	All	
Diaphragm	no difference		5.2-6.9	16-18
Cervical Cap	8.8	26.4	11.4	16-20
Spermicide	no difference		6	18-21
Female Condom	unknown		3	21-25

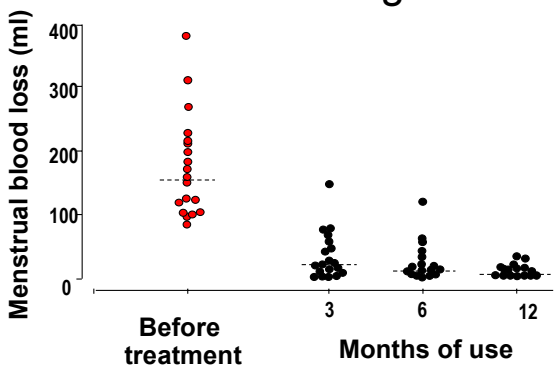
Natural Family Planning

- CycleBeads:
  - Good for rapid start NFP in women with 26-32 day cycles
  - Good for low-literacy population
- Inappropriate use of ovulation detection tests to pinpoint “at-risk days”
  - Urine tests identify most fertile days
  - Saliva-based fertility monitors
    - Ferning of saliva “around 3 days” before ovulation
    - Slide into magnifying monitor (58x)

Reproductive Goals for Women in Their 40s

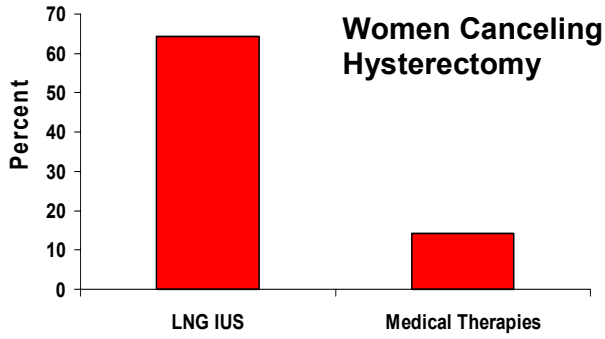
- Pregnancy prevention
- Cycle control/elimination
- Cancer reduction
- Vasomotor symptom relief

LNG IUS: Treatment Heavy Bleeding



Andersson and Rybo. Br J Obstet Gynaecol 1990;97:690

LNG IUS as Alternative to Hysterectomy



Lahteenmaki, et al. BMJ 1998;316:1122

ParaGard® T 380A Copper IUD

	Net cumulative rates (%) by year					
	1	**2**	**3**	**4**	**7**	**10**
Pregnancy	0.7	0.8	1.1	1.3	1.7	2.1
Expulsion	5.5	7.5	8.5	9.2		
Medical	16.1	26.8	32.4	36.3		
Continuation	73.0	50.2	40.3	31.8	99.9	99.9

Trussell, 1993

Patient Preference Is for Amenorrhea

Preferred Frequency of Menstrual Bleeding	Age (years)	
	45-49	52-57
Once a month	16.6%	7.6%
Once every 3 months	16.0%	11.7%
Once every 6 months	7.8%	7.6%
Once a year	3.8%	6.0%
Never	42.6%	51.1%
Not inclined to use OC/HRT	13.2%	15.9%

den Tonkelaar I, Oddens BJ. Contraception 1999;59:357-62

Oral Contraceptives And Neoplasms

	OC Effect		
Type of Neoplasm	Protective	Neutral	Adverse
Ovarian cysts	X		
Benign breast disease	X	?	
Benign hepatic neoplasm			X
Leiomyoma	?	X	
Prolactinoma		X	
Cervical dysplasia			X
Breast cancer		?	?
Cervical cancer		?	?
Endometrial cancer	X		
Ovarian cancer	X		
Hepatocarcinoma		X	
Gestational trophoblastic disease		X	

Non-Contraceptive Benefits of DMPA

- Ovulation suppression
  - Reduction in complaints related to hormonal swings, e.g. menstrual migraine
  - Reduction in cyst formation, Mittelschmerz, hemorrhagic corpus luteum cyst
- Decreased menstrual disorders: dysmenorrhea, menorrhagia
- Anemia reduction (long-term)
- PID risk reduction
- Cancer risk reduction: endometrial and possibly ovarian

DMPA Effect on Bone Mineral Density

- Rate of change of bone mineral density in women on long-term DMPA does not differ from controls
- Spinal bone density increases after cessation of DMPA, in women who become estrogen-sufficient, despite some loss of body weight
- Conclusion: Results are consistent with "estrogen deficiency" hypothesis

Male Condoms: Sizes

- Snug fitting
  - Beyond7, Studded Beyond 7, Exotica Snugger Fit, LifeStyles Snugger Fit, Trojan Ultra Fit
- Larger size—more headroom
  - Trojan Ultra Pleasure, Trojan Very Sensitive, Bareback, Trojan Her Pleasure, Midnight Desire, Pleasure Plus, LifeStyles Xtra Pleasure, Inspiral, Durex Enhanced Pleasure, LifeStyles Natural Feeling
- Larger size—roomy from top to bottom
  - Maxx, Trojan Large, Magnum XL, Magnum, Durex Maximum, LifeStyles Large, Avanti, Crown, Trojan Supra

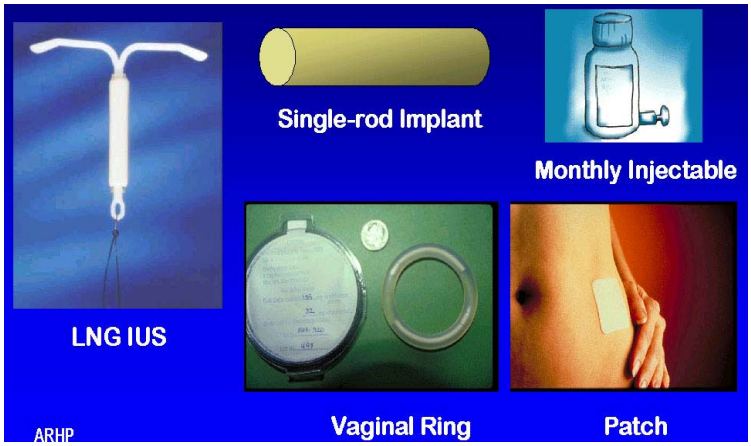
Male Condoms: Other Characteristics

- Sensitivity, texture, extra strength, desensitizing, pleasure producing, flavor/scent, color, lubrication
- Desensitizing condoms with "climax control lubricant featuring benzocaine that helps prolong sexual pleasure and aids in prevention of premature ejaculation" (Durex Performax, Trojan Extended Pleasure)
- Spermicidally lubricated condoms

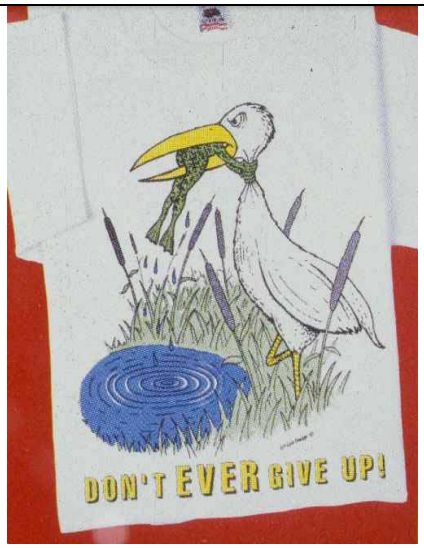
Emergency Contraception (EC): Under-utilization in U.S.

- Public lack of awareness. Telephone survey of 1000 women and 300 men found:
  - Only 36% aware that “anything could be done” after unprotected intercourse to prevent pregnancy
  - Only 1% of women had ever used EC

New Birth Control Methods



DON'T EVER GIVE UP!



ADDITIONAL RESOURCES

ARTICLES

Association of Reproductive Health Professionals. *Factors Affecting Individual Choice and Use of Contraceptive*. Clinical Proceedings 2001. http://www.arhp.org/healhtcareproviders/onlinepublications/clinicalproceedings.cfm?ID=106.

The Association of Reproductive Health Professionals (ARHP) discusses a range of factors that affect a woman's contraceptive selection. These factors include life stage, finances, and cultural beliefs. These factors and others are discussed in a succinct manner to guide the health practitioner in assisting women choose a birth control method that meets her needs.

Stanback, J. and Reynolds, H.W. *In Search of Seamless Transition to Post-Lactational Amenorrhea Method Contraception*. International Family Planning Perspectives 2002; 28(4):225-6.

The authors recommend that the Lactational Amenorrhea Method (LAM) can be a highly effective postpartum contraceptive. They highlight that lack of knowledge about LAM among providers contributes to its low use among postpartum women. The dilemma women face is transitioning from LAM to another birth control. The need for providers to educate women about LAM is also discussed.

The Contraceptive Report. *WHO 2000 Contraceptive Medical Eligibility Guidelines*. The Contraceptive Report 2001; 12(5):8-14.

The Contraceptive Report presents a brief review of recent changes to the World Health Organization (WHO) contraceptive medical eligibility guidelines. WHO released the second edition of the Medical Eligibility Criteria for Contraceptive Use guidelines in 2000. The review covers hormonal contraceptives and intrauterine devices.

WEB SITES

American College of Obstetrics and Gynecologists: http://www.acog.org

Association of Reproductive Health Professionals: http://www.arhp.org

California Family Health Council: http://www.cfhc.org

Center for Health Training: http://www.centerforhealthtraining.org

Family Health International: http://www.fhi.org

Family PACT: http://www.familypact.org

John Hopkins University: http://www.jhuccp.org

PATH (Program for Appropriate Technology in Health): http://www.path.org